

SN 10/767,037

Case 162-CIP-Div2-U.S.(RCE)

ABSTRACT

~~Apparatus for softening a selected portion of a steel object which comprises subjecting the selected portion to electrical energy derived from induction heating or infrared heating to a controlled depth, preferably just sufficiently deep to soften said portion but not sufficiently deep to soften the remainder of the part.~~

Differential hardening apparatus for softening a portion only of a metal workpiece such as a die block consisting of apparatus for presenting a workpiece to a heat source which impinges heat directly on the workpiece and control means for causing the heat to be directed only long enough to soften only the portion which receives the heat so as to create a softened portion, such as the shank portion of a die block, and an unaffected hardened portion, such as the body portion of the die block.